

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (original): A method of treating or preventing an infection in a subject who has been exposed to or is at risk for exposure to *Bacillus anthracis*, *Yersinia pestis*, *Variola major*, *Histoplasma capsulatum*, *Haemophilus influenzae*, *Escherichia coli*, *Shigella flexneri*, *S. dysenteriae* (*Shigella bacillus*), *Salmonella*, *Staphylococcus enterotoxin B*, Ebola virus, tick-borne encephalitis virus, botulinum toxin, ricin toxin, cobra venom, shellfish toxin, botulinum toxin, saxitoxin, ricin toxin, tricothecene mycotoxin, or aflatoxin, comprising administering to the subject a therapeutically effective amount of an immunostimulatory D oligodeoxynucleotide or an immunostimulatory K oligodeoxynucleotide, thereby treating or preventing the infection.

Claim 2 (original): The method of claim 1, wherein the subject has been exposed to or is at risk for exposure to *Bacillus anthracis*.

Claim 3 (original): The method of claim 1, wherein the subject has been exposed to or is at risk for exposure to Ebola virus.

Claim 4 (original): The method of claim 1, wherein the subject has been exposed to or is at risk for exposure to tick-borne encephalitis virus.

Claim 5 (original): The method of claim 1, wherein the infection is anthrax, smallpox, Ebola, or tick-borne encephalitis.

Claim 6 (original): The method of claim 5, wherein the infection is anthrax.

Claim 7 (original): The method of claim 1, wherein the oligodeoxynucleotide is at least about 16 nucleotides in length and comprises a sequence represented by the following formula:

5' X<sub>1</sub>X<sub>2</sub>X<sub>3</sub> Pu<sub>1</sub> Py<sub>2</sub> CpG Pu<sub>3</sub> Py<sub>4</sub> X<sub>4</sub>X<sub>5</sub>X<sub>6</sub>(W)<sub>M</sub>(G)<sub>N</sub>-3'

wherein the central CpG motif is unmethylated, Pu is a purine nucleotide, Py is a pyrimidine nucleotide, X and W are any nucleotide, M is any integer from 0 to 10, and N is any integer from 4 to 10.

Claim 8 (original): The method of claim 7, wherein N is about 6.

Claim 9 (original): The method of claim 7, wherein Pu<sub>1</sub> Py<sub>2</sub> CpG Pu<sub>3</sub> Py<sub>4</sub> are phosphodiester bases.

Claim 10 (original): The method of claim 7, wherein X<sub>4</sub>X<sub>5</sub>X<sub>6</sub>(W)<sub>M</sub>(G)<sub>N</sub> comprises one or more phosphothioate bases.

Claim 11 (original): The method of claim 7, wherein X<sub>1</sub>X<sub>2</sub>X<sub>3</sub> Pu Py and Pu Py X<sub>4</sub>X<sub>5</sub>X<sub>6</sub> are self complementary.

Claim 12 (original): The method of claim 1, wherein the oligodeoxynucleotide comprises a sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, and SEQ ID NO: 25.

Claim 13 (original): The method of claim 1, wherein the oligodeoxynucleotide comprises a sequence represented by the following formula:



wherein the central CpG motif is unmethylated, Q is T, G or A, W is A or T, and N<sub>1</sub>, N<sub>2</sub>, N<sub>3</sub>, N<sub>4</sub>, N<sub>5</sub>, and N<sub>6</sub> are any nucleotides.

Claim 14 (original): The method of claim 13, wherein Q is a T.

Claim 15 (original): The method of claim 1, wherein the oligodeoxynucleotide comprises a sequence selected from the group consisting of SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, and SEQ ID NO: 43.

Claims 16-17 (canceled).

Claim 18 (currently amended): ~~A method of treating or preventing an infection in a subject who has been exposed to or is at risk for exposure to *Bacillus anthracis*, *Yersinia pestis*, *Variola major*, *Histoplasma capsulatum*, *Haemophilus influenzae*, *Escherichia coli*, *Shigella flexneri*, *S. dysenteriae* (*Shigella bacillus*), *Salmonella*, *Staphylococcus enterotoxin B*, Ebola virus, tick borne encephalitis virus, botulinum toxin, ricin toxin, cobra venom, shellfish toxin, botulinum toxin, saxitoxin, ricin toxin, tricothecene mycotoxin, or aflatoxin, The method of claim 1 further comprising administering to the subject a therapeutically effective amount of an immunostimulatory D oligodeoxynucleotide or an immunostimulatory K oligodeoxynucleotide anti-infective agent, thereby treating or preventing the infection.~~

Claim 19 (original): The method of claim 18, wherein the anti-infective agent is an antibiotic, an antiviral compound, an anti-fungal compound, or hyper-immune globulin.

Claim 20-36 (canceled).

Claim 37 (original): A method of enhancing the immunogenicity of a vaccine against a bioterrorism agent in a subject, comprising administering to the subject a therapeutically effective amount of an immunostimulatory D oligodeoxynucleotide or an immunostimulatory K oligodeoxynucleotide in combination with the vaccine, thereby enhancing the immunogenicity of the vaccine.

Claim 38 (original): The method of claim 37, wherein the vaccine is an antigen vaccine, a DNA vaccine, a protein subunit vaccine, a peptide vaccine, an attenuated vaccine, or a heat-killed vaccine.

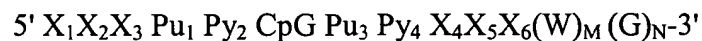
Claim 39 (original): The method of claim 37, wherein the vaccine is a vaccine against *Bacillus anthracis*, *Yersinia pestis*, *Variola major*, Ebola virus, tick-borne encephalitis virus (TBEV), *Histoplasma capsulatum*, *Haemophilus influenzae*, *Escherichia coli*, *Shigella flexneri*, *S. dysenteriae* (*Shigella bacillus*), *Salmonella*, or *Staphylococcus*.

Claim 40 (original): The method of claim 37, wherein the vaccine is an antigen from *Bacillus anthracis*.

Claim 41 (currently amended): The method of claim 40, wherein the antigen is recombinant Protective Antigen or Protective ~~Antigen~~ Antigen.

Claim 42 (original): The method of claim 37, wherein the vaccine is Anthrax Vaccine Attenuated.

Claim 43 (original): The method of claim 37, wherein the oligodeoxynucleotide is at least about 16 nucleotides in length and comprises a sequence represented by the following formula:



wherein the central CpG motif is unmethylated, Pu is a purine nucleotide, Py is a pyrimidine nucleotide, X and W are any nucleotide, M is any integer from 0 to 10, and N is any integer from 4 to 10.

Claim 44 (original): The method of claim 43, wherein N is about 6.

Claim 45 (original): The method of claim 43, wherein Pu<sub>1</sub> Py<sub>2</sub> CpG Pu<sub>3</sub> Py<sub>4</sub> are phosphodiester bases.

Claim 46 (original): The method of claim 43, wherein  $X_4X_5X_6(W)_M(G)_N$  comprises one or more phosphothioate bases.

Claim 47 (original): The method of claim 43, wherein  $X_1X_2X_3$  Pu Py and Pu Py  $X_4X_5X_6$  are self-complementary.

Claim 48 (original): The method of claim 37, wherein the oligodeoxynucleotide comprises a sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, and SEQ ID NO: 25.

Claim 49 (original): The method of claim 37, wherein the oligodeoxynucleotide comprises a sequence represented by the following formula:



wherein the central CpG motif is unmethylated, Q is T, G or A, W is A or T, and  $N_1$ ,  $N_2$ ,  $N_3$ ,  $N_4$ ,  $N_5$ , and  $N_6$  are any nucleotides.

Claim 50 (original): The method of claim 13, wherein Q is a T.

Claim 51 (original): The method of claim 37, wherein the oligodeoxynucleotide comprises a sequence selected from the group consisting of SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, and SEQ ID NO: 43.

Claim 52 (original): The method of claim 37, wherein the oligodeoxynucleotide is administered before the vaccine is administered to the subject.

Claim 53 (original): The method of claim 52, wherein the oligodeoxynucleotide is administered from about two weeks to about one day before the vaccine is administered to the subject.

Claim 54 (original): The method of claim 37, wherein the oligodeoxynucleotide is administered to the subject concurrently with the vaccine.

Claim 55 (original): The method of claim 37, wherein the oligodeoxynucleotide is administered after the vaccine is administered to the subject.

Claim 56 (original): The method of claim 55, wherein the oligodeoxynucleotide is administered from about two weeks to about one day after the vaccine is administered to the subject.

Claim 57 (original): A method of enhancing the immunogenicity of an anthrax vaccine, comprising administering to the subject a therapeutically effective amount of an immunostimulatory D or K oligodeoxynucleotide and an anthrax vaccine, thereby enhancing the immunogenicity of the vaccine.

Claim 58 (original): The method of claim 59, wherein the vaccine is Protective Antigen.

Claim 59 (original): The method of claim 59, wherein the vaccine is Anthrax Vaccine Attenuated.